

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 3. This sheet, which includes Figure 3, replaces the original sheet including Figure 3.

Attachment: Replacement Sheet

REMARKS

Claims 1-3 and 6-11 are currently pending in connection with the present application. Claims 1 and 9 are independent claims. By this Amendment, claims 9-11 are added, claims 1-3 and 6-8 are amended for clarity, Claims 4 and 5 are cancelled without prejudice or disclaimer of the subject matter contained therein. FIG. 3 is amended to correct a typographical error, and the title is amended per the Examiner's request. There is no new matter. Applicants traverse the objections and rejections such forth Office Action dated January 23, 2006.

Priority Documents

Applicants acknowledge and thank the Examiner for the acknowledgement of Priority under 35 U.S.C. §119, and further thank the Examiner for the acknowledgment for the all the necessary priority documents as shown in the Office Action dated January 23, 2006.

Information Disclosure Statements

Applicants acknowledge and thank the Examiner for the careful consideration of all the references listed in the Information Disclosure Statement field July 18, 2003 and August 8, 2005.

Drawing Objections

Applicants note that the Examiner objected to a typographical error found in FIG. 3. Applicants amended FIG. 3 with a replacement figure, attached hereto, to overcome the Examiner's objection. Therefore, withdrawal of the objection is respectfully requested.

With regard to the Examiner's objection relating to the limitation of the "storage means, which are connected to a source electrode drive circuit", such a source electrode drive circuit may be supported by, for example, column electrode drive circuit 13 of Fig. 1 and storage means

may include, for example, memory 16 of Fig. 1. Further, a common electrode drive circuit is support by at least Fig. 1, element 15, and an example of a volume circuit is shown in Fig. 6, for example. Therefore, as all such elements are supported by the existing drawings in example embodiment format, withdrawal of the objection is respectfully requested.

Objection to the Specification

The Examiner objected to the title of the application for failing to be properly descriptive.

Applicant amended the title of the present application to “ACTIVE MATRIX DISPLAY DEVICE FOR CHANGING VOLTAGE BASED ON MODE OF OPERATION”. Therefore, withdrawal of the objection is respectfully requested.

35 U.S.C. §112 Rejections

Claims 4 and 5 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with an enablement requirement. While Applicants do not agree with this rejection, claims 4 and 5 are cancelled by the present Amendment, without prejudice or disclaimer of the subject matter contained therein, to alleviate the rejection. Accordingly, Applicants submit that the rejection is rendered moot and request that the rejection of claim 4 and 5 under 35 U.S.C. §112, first paragraph be withdrawn.

Description of an Example Embodiment

An example embodiment of the present invention is directed to an LCD. In one example embodiment, to lessen or even avoid image flicker due to variations of the driving voltage for example, the voltage applied to the common electrode or source-electrode, is shifted to match the center of a voltage waveform of the common electrode with the center of the voltage waveform

of the source electrode. To accomplish this task in various modes of an LCD screen, the voltage applied to the electrodes is adjusted to match various waveforms. In FIG. 1 for example, memory 16 stores the various mode values used to adjust the voltage waveforms for the various LCD modes of operation. By shifting the waveforms of the voltage values input to the row and column electrode drive circuits, it is possible to obtain multiple variations.

PRIOR ART REJECTIONS

35 U.S.C. §102(b) Yer Rejections

Claims 1 and 3 stand rejected under 35 U.S.C. §102(b) as being anticipated by Yer et al. (U.S. PG Pub. No 2002/0109655). Applicants respectfully traverse this rejection.

Yer is directed to a driving circuit for an LCD device that responds to environmental changes by adjusting the voltage levels provided to the source driver in response to changes indicated by the environmental sensor 83. Changes are identified by environment sensor 83 and passed to controller 85, which instructs the programmable gamma voltage generated to adjust the voltage output provided to the source driver.

In Yer, the programmable gamma voltage generator includes a memory 81a. Data concerning gamma amendment are stored in the memories (memory 81a and digital variable resistor 81b) in order to obtain an exact display corresponding to a change of the circumferential environment. Based on the output of memory 81a, the resistance value of digital variable resistor 81b is adjusted, thereby changing the output voltage from the gamma voltage outputting unit 81c.

Applicants submit that Yer fails to teach or suggest at least “applying the read optimum voltage value to shift the voltage waveform of the electrode” as recited in independent claim 1, the values being stored. In Yer, only the amplitudes of the output voltage are adjusted as a response to changes from the environmental sensor. Thus, the data in Yer are merely store data

in the memories to obtain exact display corresponding to change of the circumferential environment, and does not store and apply amounts of voltage value to shift the voltage waveform of the electrode.

Accordingly, Applicants respectfully submit that Yer fails to disclose, teach, suggest or render obvious each and every feature of independent claim 1; and respectfully requests that the rejection of independent claim 1 and dependent claim 3, under 35 U.S.C. §102(b), be withdrawn.

35 U.S.C. §103(a) Dependent Yer Rejection

Claims 2 and 6-8 stand rejected under 35 U.S.C. §103(a) as being anticipated by Yer, which Applicants assume is due to obviousness. Applicants respectfully traverse this rejection.

As previously described, Yer does not disclose, teach or suggest at least the feature of “applying the read optimum voltage to shift the voltage waveform of the electrode” as recited in independent claim 1. Dependent claims 2 and 6-8 depend from independent claim 1, and therefore, include the features of independent claim 1.

Applicants submit that Yer does not render obvious the features of independent claim 1. Therefore, Applicants respectfully request the rejection of independent claims 2 and 6-8, under 35 U.S.C. §103(a), be withdrawn.

Applicants further submit that relying on common knowledge or common sense of a person of ordinary skill in the art, without any specific hint or suggestion of this in a particular reference, is not a proper standard for reaching the conclusion of obviousness.¹ If the Examiner is relying on personal knowledge to support a finding of what is known in the art, the Examiner must provide an affidavit or declaration setting forth specific factual statements and explanations to support these findings.²

¹ See, *In re Sang Lee*, 61 USPQ 2d, 1430 (Fed. Cir. 2002).

² See, 37 C.F.R. §1.04(d)(2) and MPEP §2144.03(c).

In view of the above arguments, Applicants assert that the Examiner has failed to show a *prima facie* case of obviousness under 35 U.S.C. §103(a).

NEW CLAIMS

For reasons somewhat similar to those set forth above, Applicants submit that Yer does not teach, suggest or render obvious, the subject matter of new claims 9-11 (which are dependent on independent claim 1 and thus allowable for reasons set forth therein). Accordingly, Applicants submit that new claims 9-11 are patentable.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-11 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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By


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